

## CLAIMS

- 1) Isolated polynucleotide containing a nucleotide sequence chosen from the following group:
- 5 a) a polynucleotide having at least 50 % or at least 60 % and preferably at least 70 % similarity with a polynucleotide coding for a polypeptide with the transcription factor function and having an amino acid sequence homologous with the sequence SEQ ID N°3.
  - 10 b) a complementary polynucleotide of polynucleotide a).
  - c) a polynucleotide comprising at least 15 consecutive bases of the polynucleotide defined in a) and b).
  - 2) Polynucleotide according to claim 1 in that this polynucleotide is a DNA.
  - 15 3) Polynucleotide according to claim 1 in that this polynucleotide is an RNA.
  - 4) Polynucleotide as defined in claim 2 comprising the nucleotide sequence SEQ ID N°1
  - 20 5) DNA sequence as defined in claims 1, 2 and 4 characterized in that this DNA sequence is that of the CATfIIIA gene coding for a protein having the biological function of transcription factor of *Candida albicans* CATfIIIA containing the nucleotide sequence SEQ ID N°1
  - 25 6) DNA sequence according to claim 5 having the sequence starting at nucleotide 720 and finishing at nucleotide 1955 of SEQ ID N°1.
  - 7) DNA sequence of the CATfIIIA gene according to claim 5 or 6 coding for the amino acid sequence SEQ ID N°3 (412 AA).
  - 8) DNA sequence coding for the transcription factor CATfIIIA
  - 30 according to claims 5 to 7 as well as DNA sequences which hybridize with it and/or have a significant homology with this sequence or fragments of it and having the same function.
  - 9) DNA sequence according to claims 5 to 8 comprising
  - 35 modifications introduced by suppression, insertion and/or substitution of at least one nucleotide coding for a protein having the same biological activity as the transcription factor CATfIIIA.

09301004 07E303  
 09301004 07E303

Sub B1

Sub A2

Sub B1

Sub A3

10) DNA sequence according to one of claims 5 to 9 as well as the DNA sequences which have a nucleotide sequence homology of at least 50 % or at least 60 % and preferably at least 70 % with the said DNA sequence.

11) DNA sequence according to one of claims 5 to 10 as well as the DNA sequences which code for a protein with a similar function the AA sequence of which has a homology of at least 40 % and in particular 45 % or at least 50 %, rather at least 60 % and preferably at least 70 % with the AA sequence coded by the said DNA sequence.

12) Polypeptide having the transcription factor function CATFIIIA and having the amino acid sequence SEQ ID N°3 coded by the DNA sequence according to one of claims 5 to 11 and the analogues of this polypeptide.

13) Process for the preparation of the recombinant protein CATFIII having the amino acid sequence SEQ ID N°3 comprising expression of the DNA sequence according to one of claims 5 to 11 in an appropriate host then isolation and purification of the said recombinant protein.

14) Expression vector containing the DNA sequence according to one of claims 5 to 11.

15) Host cell transformed with a vector according to claim 14.

16) Process as defined in claim 13 in which the host cell is DH5 alpha E. coli or XL1-Blue E. coli.

17) Process as defined in claim 13 in which the host cell is Saccharomyces cerevisiae.

18) Plasmid deposited at the CNCM under the number I-2072.

19) Process of screening antifungal products characterized in that it comprises a stage where the the transcription activity factor of CATFIIIA as defined in claim 12 is measured in the presence of each of the products the antifungal properties of which need to be determined and the products having an inhibitory effect on this activity are selected.

20) Use of a product selected by the process according to claim 19 in order to obtain an antifungal agent.

21) Use of the gene of the transcription factor CATfIIIA of

A3 W  
conc 5

03/04/2004 10:07:04

Sub B2

5 **22)** Pharmaceutical compositions containing as active ingredient at least one inhibitor of the transcription factor of *Candida albicans* as defined in claim 21.

10 **24)** Method of inducing an immunological response in a mammal  
comprising the inoculation of this mammal with the  
polypeptide as defined in claim 12 or a fragment of this  
polypeptide having the same function in order to produce an  
antibody making it possible to protect the animal against the  
15 disease.

26) Use of the CATfIIIA gene or of the transcription factor  
20 coded by this gene according to one of claims 5 to 12 for the  
preparation of compositions which can be used for the  
diagnosis or the treatment of diseases caused by the  
pathogenic yeast *Candida albicans*.

add 05      add 134